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Subject: Speaker maintenance

Posted by [Tikki](#) on Mon, 15 Jan 2018 11:19:50 GMT

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What is the best way to maintain and care for your speakers? I've noticed that some dust collects on the inside of speakers and I'm wondering if this will cause damage, and if I should do something about it?

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Subject: Re: Speaker maintenance

Posted by [Wayne Parham](#) on Mon, 15 Jan 2018 15:43:23 GMT

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Dust won't hurt speakers but can change the sound if there is an excessive build-up on the diaphragms, e.g. cone, ribbon or dome. If you've let this happen, gently wipe it off with a very soft feather duster. Speakers that are used regularly won't collect dust on the surface of the diaphragms because it is naturally shaken off.

For the most part, loudspeaker cabinets can be maintained just like any other furniture. If the surface becomes dirty or suffers a spill of some kind, clean with a lightly moistened cloth and then towel dry. You can use a furniture wax to protect the wood.

Prevent the speakers from direct contact with standing water or other liquids. This can damage the wood. Also, make sure the humidity is in the 20% to 80% range. Too much humidity can warp diaphragms and too little can make them brittle.

If you obtain a very old speaker that has been stored in low humidity and/or temperature extremes for a long time, subject it to a room-temperature environment with higher humidity for a while. I restore old tube radios and sometimes the cones are so fragile they can crack and tear from any vibration. I set them in a bathroom with a regularly-used shower or an adjacent closet for a few weeks so they are subjected to higher humidity. After a short while, the paper becomes much less brittle.

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Subject: Re: Speaker maintenance

Posted by [Stephan](#) on Wed, 17 Jan 2018 00:02:34 GMT

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That seems like a lot of trouble for just the one part of the speaker, or is that expensive to replace? In which case it would make sense to spend weeks on trying to repair the part rather than replace it.

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Subject: Re: Speaker maintenance  
Posted by [Kitt](#) on Thu, 18 Jan 2018 00:33:02 GMT  
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I'm also of the opinion that if it can be fixed, then why not fix it? I don't know if price is a factor when it comes to restoring old tube radios, but I think it's great that there is an option for doing that without having to replace the parts.

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Subject: Re: Speaker maintenance  
Posted by [Wayne Parham](#) on Thu, 18 Jan 2018 00:45:59 GMT  
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Tube radios usually have speakers with a field coil rather than a fixed magnet. You could replace a field-coil speaker with a fixed-magnet speaker, but then you would need to add a choke in place of the field coil. The field coil serves dual purpose, as an electromagnet to interact with the speaker's voice coil and also as a power supply ripple filter.

I don't think many people care to know about tube radio speakers, but it is just something I've noticed when working with speakers that old. The effect that humidity and temperature have on modern speakers is the same, because their cones are made of the same stuff. So that's why I brought it up. You will see the same degradation of a loudspeaker purchased today as you would of a speaker purchased 100 years ago, if it is put in a hostile environment. For example, put a speaker in a car and leave it exposed to direct sunlight. It won't take long before the cone becomes brittle and tears. Covering the speaker cone with a grille helps a great deal, and keeping the car in a garage extends its life even more.

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